

OOENCYRTUS PACIFICUS, A NEW EGG PARASITE FROM FIJI (HYM.).

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Ooencyrtus pacificus, sp. nov. (fig. 1).

♀.—Head and body shining black, with slight metallic reflections as follows:—Genae dark green, purplish and carmine towards the eye; upper surface of abdomen, in some lights, very faint dark green; tegulae like the rest of the thorax. Antennae dark brown, almost black on scape, pedicel and base of funicle; last two funicular joints lighter; club entirely pale. Wings almost hyaline, but with a faint tinge of yellow, and slightly browned on the submarginal towards the costa, as well as on the punctiform marginal vein. Legs entirely pale yellowish; the posterior femora a little browner on the dorsal edge towards the apex.

Head (fig. 1, *b*) just broader than deep (15 : 14). Eyes bare; closely approximated on the vertex, where they are separated by less than the diameter of either, or by rather more than one-fourth of the greatest breadth of the head, but with orbits so widely divergent that the lowermost angles are three times as far apart. Lateral ocelli nearly touching the eyes; not farther from the margin than one-half the diameter of an ocellus. Scrobes set well below the base line of the eyes; elongate, triangular, with rounded angles, wide apart, each of the opposed edges aligned with a lateral ocellus and the corner of the mouth-opening; the lower angle of the scrobe is halfway between the upper angle and the mouth-edge. Clypeal edge occupied by three equal, flatly rounded lobes. Occiput, vertex and frons to about the middle finely reticulate, the pattern so little raised that the surface is shining. Below one-half at the sides and towards the genae the pattern is more flowing and striate, while the mid area above and between the scrobes is perfectly smooth; there are one or two faint wrinkles above the middle of the mouth-edge; on the genae the pattern is distinctly raised in ridges, but the surface is hardly duller. On the vertex posteriorly are about four short bristles (one behind each ocellus and two between); below the anterior ocellus a bristle on each side. There are nine to ten short fine orbital bristles, the last four or five being double. Above the mouth-edge are four bristles (2,2) and on the intra-scapal area are two vertical rows (3-4, 3-4), above which are a final pair, somewhat inwardly displaced. The malar space in front of the ridge is nearly bare, but there are several bristles on the genae.

Antennae twelve-jointed: scape, pedicel, ring joint, six funicular, and five in the club. The club is not so strongly chitinized as the remainder of the antennae. Scape (7 : 2) with a subdorsal row of five bristles outside and two rows (5, 5) on the inner aspect, besides 8-9 dorsal bristles. Pedicel long and narrow (3 : 1), about three-sevenths of the scape. Ring joint, a minute lamina with a distinct stalk of insertion. Funicle gradually expanded, the first three and the last three joints, respectively, subequal; the first joint one-third of the pedicel, or five-ninths of the last funicular joint; the first three funicular joints subquadrate; the last joint nearly quadrate (9 : 8) and much broader (8 : 5) than the first. Club (10 : 9 : 8) twice as wide as the first, or about one-third wider than the last funicular joint.

The first three funicular joints bear a single row of rather stout stiff bristles, and the last three bear two such rows; on the club the bristles are more numerous and hyaline. There are few sensoria, and none till the fourth joint of the funicle, which, like the fifth, bears 1-2; the sixth bears 3; in the club the arrangement is 4, 3-4, 2. Length of antenna, .55 mm. *Mouth-parts*: maxillary palpus, 10, 7, 6, 8; first and fourth joint of the same breadth; second and third broader. One hair on the first; two on the third, four on the fourth; labial palpus, 8:5:3; four hairs on the third. Mandibles with two minute approximated apical teeth; the inner edge of the mandible broadly rounded.

Thorax.—*Pronotum* cut away obliquely, but almost without emargination above the spiracle; pattern moderately fine. An anterior irregular row (3, 3) and another posterior (7, 7) of stouter bristles, with a similar row of much finer bristles just in front. *Mesonotum* coarsely reticulate, raised, especially in front; with about forty bristles (20, 20). *Axillae* with pattern fainter and 4-6 bristles. *Scutellum* smooth, without indication of pattern save near the suture; about sixteen bristles and two clear pustules. *Mesopleurae* bare, with extremely fine striate pattern, not raised; *mesosternum* smooth, except along the middle line, where a regular, rather coarse reticulation is developed.

Wings.—*Fore wings* less than three times as long as broad; in general shape slightly spatulate, and narrow on the basal half. The neuration does not reach beyond the middle of the costa. The submarginal vein (bearing twelve bristles) is basally broad, medianly narrowed, subapically swollen again below, and contracts a little before reaching the costa. The marginal (with three or four larger bristles and a few shorter) is very short and broad, while the postmarginal is rudimentary. The radius, medianly narrow, is almost bare, but in front, the bristles of the membrane come up to the vein, one or two being set at the edge; behind there is a narrow bare area. The subcostal cell is long and narrow, with numerous minute hairs on the proximal half, and 6-8 much stronger ones apically. From behind the radius, a hairless line stretches to the middle of the posterior edge. In front of this line the wing is evenly ciliated and at one-third from the radius, on the anterior edge, are three short, flattened, strong bristles. The basal triangle of the wing is also evenly ciliated, but the hairs are longer, weaker and more scattered. Submarginal: marginal: radius: postmarginal—30:3:6:1. Length, .85 mm.; breadth, 30 mm. *Hind wings* evenly ciliated; cilia of basal half much shorter; submarginal cell practically absent. Submarginal (bare): marginal (8-9 bristles)—5:6. Length, .60 mm.; breadth, .15 mm. *Legs*.—*Fore legs*: coxae oblong (10:7), a little narrower apically than at the base, with, externally, 4-5 transverse rows of bristles containing four each; on the inside 4-5 bristles along the anterior edge, and one to two above the insertion of the trochanter. Femur anteriorly broadly bare medianly from base to apex, with only six to seven weak, short bristles in a subventral row, and about two rows (8-10) of similar bristles below the dorsal edge; three stouter and longer subapical ventral bristles. Tibia very slightly expanded; apical comb of seven spines, with two on posterior edge; comb of first tarsal joint of twelve spines. Proportions of the tarsal joints:—22:15:14:13:20 (with claw). *Mid legs*: coxa similar to that of the fore leg, but with more bristles outside. Tibia expanded from a half onwards; nearly three times broader at the apex than at the

base; three to four short peg-like apical spines anteriorly. Spur not longer than the first tarsal joint which bears about thirteen heavy spines arranged as follows:—three antero-apically, four to five on the plantar aspect and the remainder on the posterior edge; joints 2, 3, 4, with six, five and four spines, respectively. The tarsal proportions are 40 : 18 : 15 : 14 : 25. *Hind legs*: coxa quadrate, reticulate outside on apical ventral half, where there are a few bristles. Tibia with three to four spines posteriorly and subapically and ten to eleven in a transverse apical comb; the spur fine-pointed and short, and about half as long as the first tarsal joint. Proportions of the tarsal joints as in the mid legs, but the first joint one-fourth shorter.

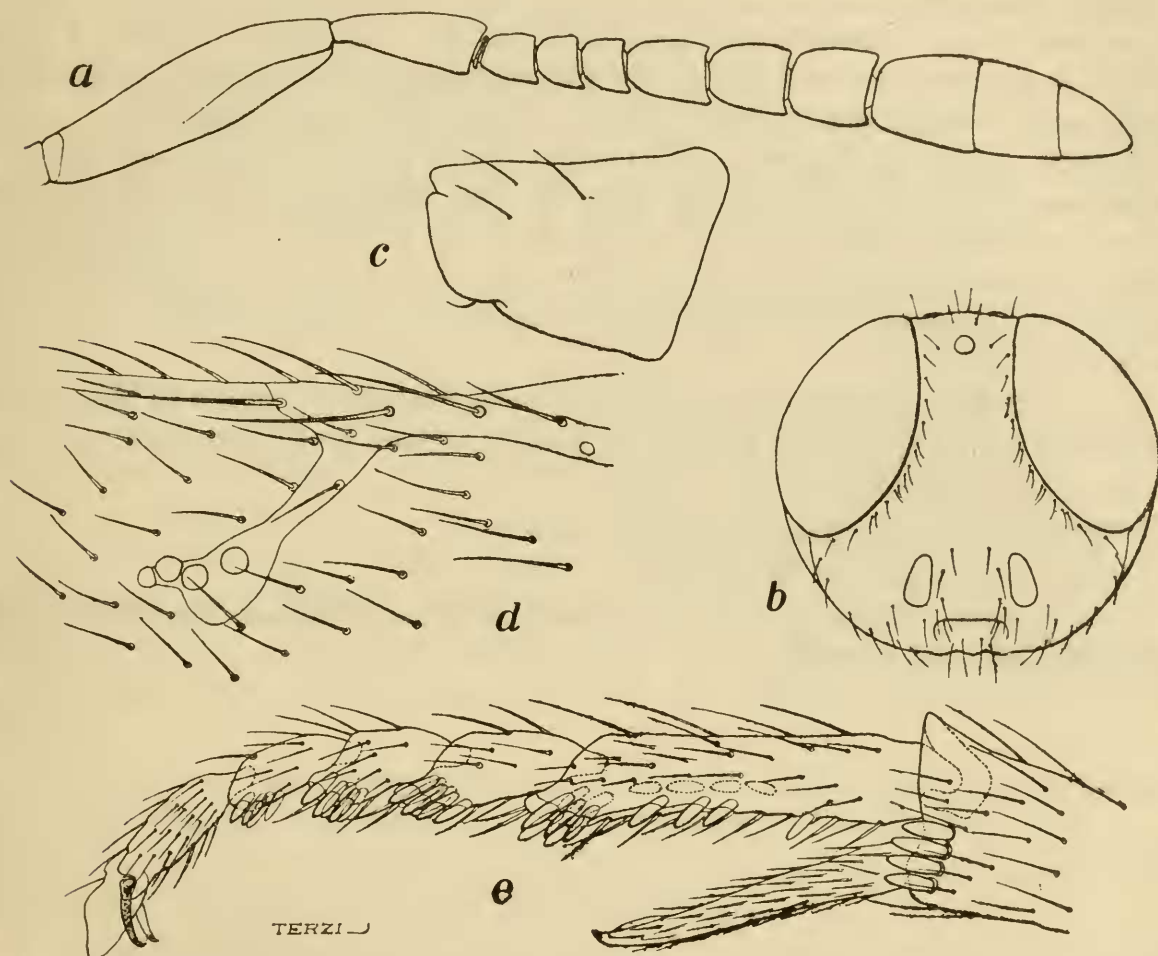


Fig. 1. *Ooencyrtus pacificus* Waterston, sp. n., ♀; a, antenna; b, head; c, mandible; d, marginal vein and radius of fore wing; e, mid-tarsus.

Propodeon deeply excavated to receive the abdomen; almost separated into two smooth triangular sclerites above. The pleurae likewise smooth, but with transverse rugae indicated ventrally. The small, oval spiracle lies anteriorly in the extreme angle between notum and pleurae, with three to four bristles.

Abdomen.—The dorsal surface smooth and bare, except near the extreme apex. The overlaps of the tergites bear two to four bristles; the U-shaped seventh tergite bears anteriorly 3, 3 and 2, 2 bristles; there are also median, post-median and posterior rows of about 5, 5, 4 bristles, respectively. The nearly circular spiracle has one bristle in front, one behind, and one on each side. The ventral surface bears

all over numerous short bristles from the second sternite onwards, and there are two patches besides, on sternite 5; on the same sternite the four posterior bristles (2, 2) are stouter and longer. Ovipositor with the articulated portion of the sheath short and broad, about one-fifth of the base; the apex of the sting finely and very shortly serrate.

Length, .7 mm. ; alar expanse, about 2 mm.

♂.—Similar to the ♀; the metallic green on the genae more pronounced. Antennae with scape blackish brown, and the remainder fuscous; paler towards the tip, but with no such contrast between club and funicle as in the ♀. Hind femora infuscated.

Head.—The eyes are wider apart on the vertex, and the lateral ocellus separated by at least its own diameter from the edge of the eye. *Antennae*: length, .7 mm.; the joints are the same as in the ♀, but the segmentation of the club is obliterated. Scape rather broader than in the ♀ (3:1). Pedicel short and broad (5:3); funicle cylindrical, joints in the ratio, 11:12:14:16:15:15. The club (in the same proportion, 60) is one-half broader than the last funicular joint. The funicular joints bear tubular hairs, of which the longest do not exceed the joint on which they stand; these hairs run as far as the middle of the club, those on the distal half being shorter. The sensoria of the funicle are as in the ♀, but there are only one or two in all on the club.

Legs.—The first mid tarsal joint is shorter, with fewer heavy spines on this and the succeeding joints (4-5 less in the case of joint 1); there is only one such spine also at the apex of the tibia, before the spur.

Length, .7 mm. ; alar expanse, about 2 mm.

Type.—A ♀, in the British Museum.

FIJI: Rarawai, Viti Levu, 1 ♂, 2 ♀♀, bred from eggs of the Bean Bug (*Brachyplatys pacificus*, Dall.) (*R. Veitch*).
